



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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JUN 21 2013

Ref: 8EPR-N

Mr. Ray Plienness
PEIS Document Manager
Office of Legacy Management
U.S. Department of Energy
11025 Dover Street, Suite 1000
Westminster, Colorado 80021

Re: Draft Uranium Leasing Program Programmatic
Environmental Impact Statement CEQ #20130060

Dear Mr. Plienness:

The U.S. Environmental Protection Agency (EPA) Region 8 has reviewed the Draft Uranium Leasing Program (ULP) Programmatic Environmental Impact Statement (PEIS) prepared by the U.S. Department of Energy (DOE). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609.

Project Description

The DOE prepared the Draft PEIS to analyze the reasonably foreseeable potential environmental impacts, including site-specific impacts, and a range of reasonable alternatives for the management of the ULP. DOE's ULP administers 31 tracts of land covering an aggregate of approximately 25,000 acres (10,000 ha) in Mesa, Montrose, and San Miguel Counties in western Colorado for exploration, mine development and operations and reclamation of uranium mines. There are 29 existing lease tracts in the project area; two of the tracts are not currently leased. The following five alternatives are considered in the Draft PEIS:

- Alternative 1 would involve terminating the existing leases and conducting reclamation as needed;
- Alternative 2 would involve terminating the leases and conducting reclamation as needed and then relinquishing all the land to the Bureau of Land Management;
- Alternative 3 would continue with exploration, mine development and operations, and reclamation at the 13 lease tracts for which leases expired prior to July 2007 and terminating the remainder of the leases;

- Alternative 4, the DOE's preferred alternative, would continue, with some changes, the leases for the next 10 years or another reasonable period, as appropriate; and
- Alternative 5, the no action alternative, would continue the leases exactly as they are written for the remainder of the 10-year period plus the time necessary to complete the PEIS.

The EPA's Comments and Recommendations

The EPA provided scoping comments and we participated as a cooperating agency for this project. The DOE addressed many of our comments in this Draft PEIS resulting in a better explanation of the environmental impacts of the program. Through this process, we have narrowed our recommendations for information that the DOE consider including in the Final PEIS or future project-specific NEPA documents. The following comments and recommendations focus on waste rock piles, human health risk and water impacts.

Waste Rock Piles

Covering the waste rock with an adequate amount of soil is necessary to reduce emissions of radioactive particulates and radon thereby reducing potential for exposure to radiation. Within the PEIS there are inconsistencies in the descriptions of waste rock pile reclamation, making it unclear whether there will be adequate soil cover. Page 4-22 states that during reclamation, waste-rock piles will be covered by a layer of soil to facilitate vegetation growth and page 2-29 states that waste rock would be graded with the slope of the area and then seeded to conform to its surroundings. Also, Table 4.7-7 indicates that some waste-rock piles have been covered with soil, but it is not clear whether there are other waste-rock piles that remain uncovered. We recommend that the Final PEIS clarify that all waste rock will be covered with a protective layer of soil.

We support the mitigation measure in Table 4.6-1 stating that the operator will use modeling and/or monitoring to determine the adequate thickness for surface soil covering waste rock piles, and we recommend that future project-level NEPA documents include the procedures and methods that will be used to determine the minimum cover thickness required to effectively reduce the emissions of radioactive particulates.

Human Health Risk Assessment

COMPLY-R

The DOE used the CAP88-PC model to estimate radiation doses and associated risks for all scenarios considered (e.g., hypothetical small, medium, large and very large mines). For comparison purposes, the COMPLY-R model was used to estimate radiation doses and associated risks for a hypothetical small mine. COMPLY-R is required for determining compliance with the radon National Emission Standard for Hazardous Air Pollutants (NESHAP) of 10 millirem (mrem) per year, found in 40 CFR Part 61 Subpart B. The Draft PEIS does not include results from COMPLY-R for a medium, large, or very large mine and it is unclear how radiation doses will compare to the NESHAP when COMPLY-R, the required computer code, is used for these hypothetical larger mines. We recommend that the Final PEIS provide a table of modeled COMPLY-R results for each hypothetical mine size and compare the results to the NESHAP standard.

Risk Assessment Scenarios

The Draft PEIS includes an exposure analysis for a mine worker during the operational phase of the mine. It does not include an exposure analysis for a worker performing reclamation in that mine. We recommend that the Final PEIS include an exposure analysis for a worker performing reclamation in the mine or explain why exposures from reclamation in the mine are not included in the risk assessment.

The Draft PEIS does not include an analysis of the risk to a recreationist during the operations phase. There is a potential for recreationists to have greater (short-term) exposure to radiation and radon compared to off-site residents. We recommend that the Final PEIS analyze the risk from the operations phase to a recreationist. As an alternative, the DOE could explain why this receptor was not included in the analysis.

Some of the scenarios analyzed in the risk analysis appear to lack relevant site-specific information. The Draft PEIS assesses the risk assuming resident exposure to one operating mine or a single waste-rock pile. It is not clear whether a resident could be exposed to more than one operating mine and/or waste-rock pile at a time. We recommend that the Final PEIS clarify and update the analysis based on the number of operating mines and waste rock piles a resident may be exposed to. Alternatively, if this information cannot be determined at this time, we recommend that the DOE update the analysis in a future project-level NEPA document.

Radon Risk from Daneros and Whirlwind Mines

Table 4.7-4 states that radon emissions would quickly disperse and that there would be no impact to the general public from the Daneros mine and Table 4.7-5 states that no general public health impacts are predicted from the Whirlwind mine. Although the risk may be very small, stating that the risk is zero is inaccurate. We recommend that the Final PEIS include the dose for the nearest member of the public from Rn-222 from each of these mines, or if a quantitative assessment is not available, we recommend stating that the dose will be limited to below the 40 CFR Part 61 Subpart B regulatory limit of 10mrem/year.

Water Resources

Water Use

The Draft PEIS states that 6.3 million gallons per year of water will be trucked in for use at the mines. The impact of this water use on the local water supply is not provided. Knowing the source of this water and other water demands and trends for different water uses such as irrigation, municipal and domestic use is important for understanding the potential water supply impacts. We recommend that the Final PEIS describe the anticipated water source or sources, and include a water supply analysis for all types of uses in future project-specific NEPA documents.

Surface Water

Water resources in the region affected by this action include surface water in the Upper Dolores, San Miguel and Lower Dolores Rivers. Under all five alternatives, impacts on water quality could occur as a

result of land disturbance and underground mining activities associated with mine development, operations, and reclamation. These impacts would be minimized by the implementation of compliance and mitigation measures and/or best management practices that will be identified in the mine plans. We recommend that the DOE consider requiring the compliance and mitigation measures that are identified in mine plans in future project-specific NEPA and leasing documents.

The Draft PEIS states that the radioactive and chemical constituents of concern are not expected to reach a surface water body near the mining site. We recommend that the Final PEIS explain that this conclusion is based upon new mining activity being restricted within 0.25 miles of perennial streams. We also recommend that the Final PEIS clarify that this mitigation measure applies to springs and other surface water that can be accessed by wildlife and livestock.

Although the DOE is planning to restrict mining activity within ¼ mile of the Dolores River in the future, past mining activities within ¼ mile of the river may have resulted in adverse impacts. Based on the description of the lease tracts in Section 1.2.3, it appears that mining activity may have taken place within ¼ mile of the Dolores River. A description of any known impacts would provide a better understanding of existing conditions. We recommend that the Final PEIS include a description of identified impacts to the Dolores River or its adjacent aquatic resources.

Drinking Water

We appreciate the DOE's efforts to provide information regarding specific mine locations so that we could compare those locations to public drinking water supply sources. We are not currently aware of any public drinking water supplies or source water protection zones that are within the leasing areas. In order to ensure the public is aware of the public drinking water supply sources (e.g., surface water sources including groundwater under the direct influence of surface water sources, and groundwater sources) and to ensure that those sources are protected from potential impacts associated with uranium mining, the EPA recommends that the Final PEIS include a map of the current source water protection areas compared to the lease areas. The source water protection zones are available directly from the Colorado Department of Public Health and Environment Source Water Protection Program Coordinator, John Duggan at (303) 692-3534.

The Draft PEIS states on page 3-73 that groundwater wells located along the pathways of groundwater flow from the lease tracts to the areas of groundwater discharge would have relatively high potential to be affected if groundwater within the lease tracts is adversely affected. The document identifies 15 domestic wells within 1,000 feet of lease tracts that are located along these pathways. It does not explain why potential impacts would be limited to wells with 1,000 feet. We recommend that the DOE consider the hydrogeology in assessing potential impacts to domestic wells and identify in the Final PEIS all domestic wells that could be impacted even if they are greater than 1000 feet from the lease tracts or describe the rationale for limiting the analysis area to 1000 feet.

We recommend that the DOE identify and assure protection of all Underground Sources of Drinking Water (USDWs) in the leasing area in the Final PEIS or future project-specific NEPA documents. Federal Safe Drinking Water Act regulations define a USDW as an aquifer or portion thereof: (a) (1) which supplies any public water system; or (2) which contains a sufficient quantity of ground water to supply a public water system; and (i) currently supplies drinking water for consumption;

or (ii) contains fewer than 10,000 milligram per liter total dissolved solids and (b) which is not an exempted aquifer (See 40 CFR Section 144.3).

EPA's Rating and Recommendations

Consistent with Section 309 of the CAA, it is the EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. Based on the procedures the EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action, the EPA is rating this Draft PEIS as Environmental Concerns - Insufficient Information (EC-2). The "EC" rating indicates that the EPA review has identified environmental impacts that need to be avoided in order to protect the environment. The "2" rating indicates that the EPA review has identified a need for additional information, data, analysis or discussion in the Final EIS in order for the EPA to fully assess environmental impacts from the proposed project. A description of the EPA's rating system is enclosed.

We appreciate the opportunity to comment on these documents, and hope our suggestions for improving them assist you. We would be happy to meet to discuss these comments and our suggested solutions. If you have any questions or would like to discuss our comments, please contact me at (303) 312-6925 or Vanessa Hinkle of my staff at (303) 312-6561.

Sincerely,



Suzanne J. Bohan

Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Enclosure



